

CLAIMS

1 1. A method for permitting a client to access a database system on a server via an
2 Internet connection, comprising:
3 providing middleware communicating with the client and server;
4 the middleware including at least one file;
5 the file having at least one parameterized database system query language
6 statement;
7 in response to a client request for data, accessing the file; and
8 using the parameterized statement to return data satisfying the request to the
9 client.

1 2. The method of Claim 1, wherein the database system query language is SQL.

1 3. The method of Claim 2, wherein the data satisfying the request is sent via
2 Hypertext Transfer Protocol (HTTP) in Extensible Markup Language (XML).

1 4. The method of Claim 1, wherein the parameterized statement facilitates a query
2 for data.

1 5. The method of Claim 1, wherein the parameterized statement facilitates an
2 update to the database system.

1 6. The method of Claim 2, wherein the parameterized statement facilitates an SQL
2 stored procedure call.

1 7. The method of Claim 1, wherein the client request is one of the following: a
2 SOAP request, an HTTP GET request, or an HTTP POST request.

1 8. The method of Claim 1, wherein the middleware further comprises:
2 at least one router receiving the client request; and
3 the router including at least one servlet.

1 9. The method of Claim 8, wherein the servlet replaces at least some parameters
2 in the parameterized statement with corresponding values from the client request to establish a
3 fully qualified SQL statement.

1 10. The method of Claim 9, wherein the servlet sends the SQL statement to the
2 database system for execution thereof.

1 11. The method of Claim 10, wherein the database system generates a response to
2 the SQL statement and the method further comprises:
3 sending the response to the client.

1 12. The method of Claim 11, further comprising the act of:

2 converting the response to XML.

1 13. The method of Claim 8, wherein the servlet generates documentation and a test
2 page in HTML at least partially based on the client request.

1 14. The method of Claim 8, wherein the servlet generates a service description
2 (WSDL file) at least partially based on the client request.

1 15. The method of Claim 8, wherein the servlet incorporates a document access
2 definition (DAD) at least partially based on the client request.

1 16. The method of Claim 8, wherein the servlet generates Extensible Markup
2 Language Schema data (XSD) at least partially based on the client request.

1 17. A computer system, comprising:
2 at least one client;
3 at least one middleware accessible to the client;
4 at least one file accessible to the middleware and containing at least one
5 parameterized statement; and
6 at least one database system accessible to the middleware.

1 18. The system of Claim 17, wherein:

2 the middleware receives a client request for data.

1 19. The system of Claim 18, wherein:

2 the middleware replaces at least some parameters in a parameterized statement
3 with corresponding values from the client request to establish a fully qualified SQL statement.

1 20. The system of Claim 19, wherein:

2 the middleware sends the SQL statement to the database system for execution
3 thereof.

1 21. The system of Claim 20, wherein:

2 the database system generates a response to the SQL statement and the response is
3 returned to the client.

1 22. The system of Claim 18, wherein the client request is one of the following: a

2 SOAP request, an HTTP GET request, or an HTTP POST request.

1 23. The system of Claim 18, wherein:

2 the middleware generates documentation and a test page in HTML at least
3 partially based on the client request.

1 24. The system of Claim 18, wherein:

2 the middleware generates a service description (WSDL file) at least partially based
3 on the client request.

1 25. The system of Claim 18, wherein:
2 the middleware servlet incorporates a document access definition (DAD) at least
3 partially based on the client request.

1 26. The system of Claim 18, wherein:
2 the middleware generates Extensible Markup Language Schema data (XSD) at least
3 partially based on the client request.

1 27. A method for permitting a client to access a database system on a server via a
2 wide area network, comprising:
3 providing a file between the client and database system, the file having at least
4 one parameterized SQL statement;
5 replacing at least some parameters in the parameterized statement with
6 corresponding values from the client request to establish a fully qualified SQL
7 statement;
8 sending the SQL statement to the database system for execution thereof;
9 at the database system, generating a response to the SQL statement;
10 converting the response to XML if necessary; and
11 sending the response to the client.

1 28. A computer program device, comprising:
2 a computer readable means having logic means for facilitating data
3 communication between a client and a database at a server, comprising:
4 logic means for receiving at least one client request for data;
5 logic means for accessing a file having at least one parameterized SQL
6 statement at least partially based on the client request; and
7 logic means for returning a response to the client in XML at least partially
8 based on the parameterized SQL statement.

1 29. The computer program device of Claim 28, wherein the client request is one of
2 the following: a SOAP request, an HTTP GET request, or an HTTP POST request.

1 30. The computer program device of Claim 29, wherein the computer readable
2 means further comprises:
3 logic means for generating documentation or a test page in HTML at least partially
4 based on the client request.

1 31. The computer program device of Claim 29, wherein the computer readable
2 means further comprises:
3 logic means for generating a service description (WSDL file) at least partially based on
4 the parameterized SQL statement.

1 32. The computer program device of Claim 29, wherein the computer readable
2 means further comprises:
3 logic means for incorporating a DAD file at least partially based on the client request.

090744-050404
TOP SECRET